

CLAIMS

1. A capacitor module for a pulse forming network, which module comprises:

5 a capacitor unit oriented in a radial direction with respect to a central axis of the network, the capacitor unit having an outer end wall, inner end wall and side surfaces that extend between the outer and the inner end walls;

wherein the outer end walls and inner end walls are aligned substantially normal to the radial direction and the outer end wall is wider than the inner end wall so that the capacitor unit tapers inward from the outer end wall to the inner end wall.

2. The capacitor module of claim 1 further comprising:

15 a coupling module that is also oriented in the radial direction, which coupling module has radially outer and an inner end walls and side surfaces;

wherein the radially outer end wall of the coupling module is interconnected with the inner end wall of the capacitor unit, with the inner end wall of the capacitor unit being wider than the outer end wall of the coupling module; and

20 wherein the radially outer end wall of the coupling module is wider than its inner end wall so that the coupling module also tapers inward.

3. The capacitor module of claim 2 wherein a plurality of physically similar capacitor units are independently interconnected to the coupling module and are independently removable therefrom in a radially outward direction.

4. A space frame in combination with the capacitor module of claim 2, which frame comprises:

means for supporting the coupling module in a location where it is oriented in a radial direction to the axis of the network and where the coupling module is connected to a pulse forming network bus, from which frame the coupling module can be removed in a radially outward direction.

5. The space frame and capacitor module of claim 4 wherein the capacitor module supported therein contains a plurality of capacitor units which

connect to the coupling module in a manner so that each capacitor unit may be radially removed from the coupling module while the module remains supported in said space frame.

5 6. The space frame and capacitor module of claim 5 wherein each of said capacitor units has flat upper and lower surfaces and wherein said side surfaces are also substantially flat.

10 7. The space frame and capacitor module of claim 6 wherein centering pins which are radially aligned are carried on said side surfaces of said capacitor units and wherein said space frame contains receptacles that receive said pins to align and support said units.

15 8. A pulse-forming capacitor network for disposition in a limited spatial environment which comprises:

 a plurality of capacitor modules arranged in an annular array;
 a space frame for supporting the capacitor modules in locations at different vertical levels where each module is oriented in a radial direction to the axis of the annular array; and

20 a plurality of pulse forming network buses for electrically connecting said capacitor modules;

 each said capacitor module comprising at least one capacitor unit and a coupling module, both being oriented in said radial direction,

25 each said capacitor unit having an outer end wall and an inner end wall and having side surfaces that extend between the outer and the inner end walls, with the outer end wall and inner end wall being aligned substantially normal to the radial direction and with the outer end wall being wider than the inner end wall so that the capacitor unit tapers inward from the outer end wall to the inner end wall, and

30 said coupling module being connected to one of said buses and being removable from said frame in a radially outward direction.

 9. The pulse-forming network of claim 8 wherein said coupling module has radially outer and inner end walls and side surfaces, with the radially outer end wall of the coupling module being interconnected with the inner end wall of the capacitor unit, and with the inner end wall of the capacitor unit being wider than the outer end wall of the coupling module; and

 wherein the radially outer end wall of the coupling module is wider than its inner end wall so that the coupling module also tapers inward.

10. The pulse-forming network of claim 9 wherein a plurality of physically similar capacitor units are independently interconnected to one said coupling module and are independently removable therefrom in a radially outward direction.

5 11. The pulse-forming network of claim 9 wherein each capacitor module contains a plurality of vertically stacked capacitor units, which units are connected to the coupling module in a manner so that each capacitor unit may be radially removed from the coupling module while the module remains supported in said space frame.

10 12. The pulse-forming network module of claim 11 wherein each of said capacitor units has substantially flat upper, lower and side surfaces.

13. The pulse-forming network of claim 8 wherein radially aligned centering pins are carried on said side surfaces of said capacitor units and wherein
15 said space frame contains receptacles that receive said pins to align and independently support said units.

14. A pulse-forming capacitor network installation disposed in a confined spatial space, which installation comprises:
20 a bulkhead which defines a cylindrical space within an interior wall surface thereof;
a rotatable circular platform at the bottom of said cylindrical space;
a plurality of capacitor modules arranged in an annular array;
a space frame affixed to said circular platform for supporting the
25 capacitor modules in locations at different vertical levels where each module is oriented in a radial direction to the axis of the annular array about which said platform rotates;
a plurality of pulse forming network buses for electrically connecting said capacitor modules carried by said space frame;
30 each said capacitor module comprising at least one capacitor unit and a coupling module, both being oriented in said radial direction;
each said capacitor unit having an outer end wall and an inner end wall and having side surfaces that extend between the outer and the inner end wall, with the outer end walls and inner end wall being aligned substantially normal to the radial
35 direction and with the outer end wall being wider than the inner end wall so that the capacitor unit tapers inward from the outer end wall to the inner end wall;
said coupling module being connected to one of said buses and being removable from said frame in a radially outward direction; and

said bulkhead having a vertically extending service entrance, whereby rotation of said circular platform rotates said annular array so that any capacitor unit can be removed and serviced by annularly aligning it with said service opening.

5 15. The pulse-forming network of claim 14 wherein said coupling module has

radially outer and inner end walls with the radially outer end wall of the coupling module being wider than the inner end wall and having side surfaces that taper inward; and

10 wherein the radially outer end wall of the coupling module is interconnected with the wider inner end wall of the capacitor unit.

 16. The pulse-forming network of claim 15 wherein a plurality of physically similar capacitor units are independently interconnected to one said
15 coupling module and are independently removable therefrom in a radially outward direction when said array is rotated to align said unit with said service opening.

 17. The pulse-forming network of claim 15 wherein each capacitor module contains a plurality of vertically stacked capacitor units, which units are each
20 connected to the coupling module in a manner so that each capacitor unit may be radially removed from the coupling module while the module remains supported in said space frame.

 18. The pulse-forming network module of claim 17 wherein each of said
25 capacitor units has substantially flat upper, lower and side surfaces.

 19. The pulse-forming network of claim 14 wherein radially aligned centering pins are carried on said side surfaces of said capacitor units and wherein
30 said space frame contains receptacles that receive said pins to align and independently support said units.